WORKSHOP

Aplikasi dan Komputasi Awan 4

Kelompok 2

Raihan Mufti Mubarok

3122522011

Aldy Hari Putra

3122522003

Achmad Eko Darmawan

3122522019

D3 PSDKU Sumenep

PRODI D3 TEKNIK INFORMATIKA

DEPARTEMEN TEKNIK INFORMATIKA DAN KOMPUTER

PENS PSDKU SUMENEP

Aws region

```
provider "aws" {
    region = "ap-southeast-2"
}
```

Virtual private cloud (vpc)

```
provider "aws" {
    region = "ap-southeast-2"
}

resource "aws_vpc" "latihan-2-vpc" {
    cidr_block = "10.0.0.0/16"
    instance_tenancy = "default"
    enable_dns_support = "true"
    enable_dns_hostnames = "true"
    tags = {
        Name = "latihan-2-vpc"
    }
}
```

Subnet public 1

```
resource "aws_subnet" "latihan-2-subnet-public-1" {
  vpc_id                  = aws_vpc.latihan-2-vpc.id
  cidr_block              = "10.0.1.0/24"
  map_public_ip_on_launch = "true"
  availability_zone       = "ap-southeast-2a"

  tags = {
    Name = "latihan-2-subnet-public-1"
  }
}
```

Subnet public 2

```
resource "aws_subnet" "latihan-2-subnet-public-2" {
  vpc_id                  = aws_vpc.latihan-2-vpc.id
  cidr_block              = "10.0.2.0/24"
  map_public_ip_on_launch = "true"
  availability_zone       = "ap-southeast-2b"

  tags = {
    Name = "latihan-subnet-public-2"
  }
}
```

Internet gateway

```
resource "aws_internet_gateway" "latihan-2-igw" {
    vpc_id = aws_vpc.latihan-2-vpc.id

    tags = {
        Name = "latihan-2-igw"
    }
}
```

Route table

```
resource "aws_route_table" "latihan-2-route-table-public" {
  vpc_id = aws_vpc.latihan-2-vpc.id
  route {
    cidr_block = "0.0.0.0/0"
    gateway_id = aws_internet_gateway.latihan-2-igw.id
  }
  tags = {
    Name = "latihan-2-route-table-public"
  }
}
```

Route table association

```
resource "aws_route_table_association" "latihan-2-rta-public-1-a" {
  subnet_id      = aws_subnet.latihan-2-subnet-public-1.id
  route_table_id = aws_route_table.latihan-2-route-table-public.id
}
resource "aws_route_table_association" "latihan-2-rta-public-2-a" {
  subnet_id      = aws_subnet.latihan-2-subnet-public-2.id
  route_table_id = aws_route_table.latihan-2-route-table-public.id
}
```

Ec2 ke 1

```
resource "aws_instance" "latihan-2-ec2-1" {
  ami           = "ami-09c8d5d747253fb7a"
  instance_type = "t3.micro"
  subnet_id     = aws_subnet.latihan-2-subnet-public-1.id
  key_name      = "keyPairLatihan2"
  tags = {
    Name = "Latihan-2-ec2-1"
  }
}
```

Ec2 ke 2

```
resource "aws_instance" "latihan-2-ec2-2" {
  ami           = "ami-09c8d5d747253fb7a"
  instance_type = "t3.micro"
  subnet_id     = aws_subnet.latihan-2-subnet-public-2.id
  key_name      = "keyPairLatihan2"
  tags = {
    Name = "Latihan-2-ec2-2"
  }
}
```

Terraform init

```
PS C:\Semester 4\Komputasi Awan\project1> terraform init

Initializing the backend...

Initializing provider plugins...
- Reusing previous version of hashicorp/aws from the dependency lock file
- Using previously-installed hashicorp/aws v5.39.0

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
rerun this command to reinitialize your working directory. If you forget, other
commands will detect it and remind you to do so if necessary.
```

Terraform plan

```
PS C:\Semester 4\Komputasi Awan\project1> terraform plan

Terraform used the selected providers to generate the following execution plan. Resour
ce
actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # aws_instance.latihan-2-ec2-1 will be created
  + resource "aws_instance" "latihan-2-ec2-1" {
      + ami                                  = "ami-09c8d5d747253fb7a"
      + arn                                  = (known after apply)
      + associate_public_ip_address          = (known after apply)
      + availability_zone                    = (known after apply)
      + cpu_core_count                       = (known after apply)
      + cpu_threads_per_core                 = (known after apply)
      + disable_api_stop                     = (known after apply)
      + disable_api_termination              = (known after apply)
      + ebs_optimized                        = (known after apply)
      + get_password_data                    = false
      + host_id                              = (known after apply)
      + host_resource_group_arn              = (known after apply)
      + iam_instance_profile                 = (known after apply)
      + id                                   = (known after apply)
      + instance_initiated_shutdown_behavior = (known after apply)
      + instance_lifecycle                   = (known after apply)
      + instance_state                       = (known after apply)
      + instance_type                        = "t3.micro"
      + ipv6_address_count                   = (known after apply)
      + ipv6_addresses                       = (known after apply)
      + key_name                             = "keyPairLatihan2"
      + monitoring                           = (known after apply)
      + outpost_arn                          = (known after apply)
      + password_data                        = (known after apply)
      + placement_group                      = (known after apply)
      + placement_partition_number           = (known after apply)
```

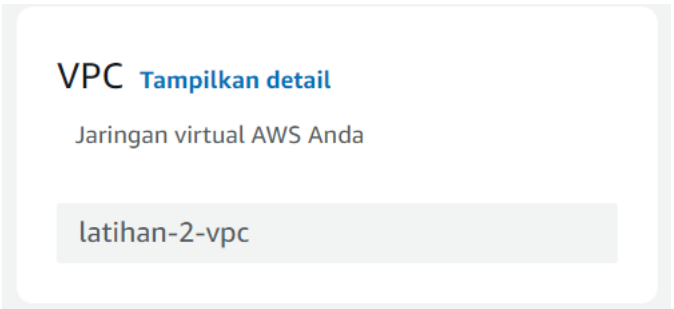
```
      + private_dns_hostname_type_on_launch           = (known after apply)
      + tags                                          = {
          + "Name" = "latihan-subnet-public-2"
        }
      + tags_all                                      = {
          + "Name" = "latihan-subnet-public-2"
        }
      + vpc_id                                        = (known after apply)
    }

  # aws_vpc.latihan-2-vpc will be created
  + resource "aws_vpc" "latihan-2-vpc" {
      + arn                                = (known after apply)
      + cidr_block                         = "10.0.0.0/16"
      + default_network_acl_id             = (known after apply)
      + default_route_table_id             = (known after apply)
      + default_security_group_id          = (known after apply)
      + dhcp_options_id                    = (known after apply)
      + enable_dns_hostnames               = true
      + enable_dns_support                 = true
      + enable_network_address_usage_metrics = (known after apply)
      + id                                 = (known after apply)
      + instance_tenancy                   = "default"
      + ipv6_association_id                = (known after apply)
      + ipv6_cidr_block                    = (known after apply)
      + ipv6_cidr_block_network_border_group = (known after apply)
      + main_route_table_id                = (known after apply)
      + owner_id                           = (known after apply)
      + tags                               = {
          + "Name" = "latihan-2-vpc"
        }
      + tags_all                           = {
          + "Name" = "latihan-2-vpc"
        }
    }

Plan: 9 to add, 0 to change, 0 to destroy.
```

Terraform aplly

```
PS C:\Semester 4\Komputasi Awan\project1> terraform apply

Terraform used the selected providers to generate the following execution plan. Resour
ce
actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

  # aws_instance.latihan-2-ec2-1 will be created
  + resource "aws_instance" "latihan-2-ec2-1" {
      + ami                                  = "ami-09c8d5d747253fb7a"
      + arn                                  = (known after apply)
      + associate_public_ip_address          = (known after apply)
      + availability_zone                    = (known after apply)
      + cpu_core_count                       = (known after apply)
      + cpu_threads_per_core                 = (known after apply)
      + disable_api_stop                     = (known after apply)
      + disable_api_termination              = (known after apply)
      + ebs_optimized                        = (known after apply)
      + get_password_data                    = false
      + host_id                              = (known after apply)
      + host_resource_group_arn              = (known after apply)
      + iam_instance_profile                 = (known after apply)
      + id                                   = (known after apply)
      + instance_initiated_shutdown_behavior = (known after apply)
      + instance_lifecycle                   = (known after apply)
      + instance_state                       = (known after apply)
      + instance_type                        = "t3.micro"
      + ipv6_address_count                   = (known after apply)
      + ipv6_addresses                       = (known after apply)
      + key_name                             = "keyPairLatihan2"
      + monitoring                           = (known after apply)
      + outpost_arn                          = (known after apply)
      + password_data                        = (known after apply)
      + placement_group                      = (known after apply)
      + placement_partition_number           = (known after apply)
```

```
PS C:\Semester 4\Komputasi Awan\project1> terraform apply
aws_vpc.latihan-2-vpc: Refreshing state... [id=vpc-09863ff3a107ddfe2]
aws_internet_gateway.latihan-2-igw: Refreshing state... [id=igw-0a40f171536af7c5f]
aws_subnet.latihan-2-subnet-public-2: Refreshing state... [id=subnet-0532e14e59802dacd
]
aws_route_table.latihan-2-route-table-public: Refreshing state... [id=rtb-042e1685f1d2
1266b]
aws_instance.latihan-2-ec2-2: Refreshing state... [id=i-0ac8f9391834464c5]
aws_route_table_association.latihan-2-rta-public-2-a: Refreshing state... [id=rtbassoc
-0d0945fed43d31c5f]

Terraform used the selected providers to generate the following execution plan.
Resource actions are indicated with the following symbols:
  + create
-/+ destroy and then create replacement

Terraform will perform the following actions:

  # aws_instance.latihan-2-ec2-1 will be created
  + resource "aws_instance" "latihan-2-ec2-1" {
      + ami                                  = "ami-09c8d5d747253fb7a"
      + arn                                  = (known after apply)
      + associate_public_ip_address          = (known after apply)
      + availability_zone                    = (known after apply)
      + cpu_core_count                       = (known after apply)
      + cpu_threads_per_core                 = (known after apply)
      + disable_api_stop                     = (known after apply)
      + disable_api_termination              = (known after apply)
      + ebs_optimized                        = (known after apply)
      + get_password_data                    = false
      + host_id                              = (known after apply)
      + host_resource_group_arn              = (known after apply)
      + iam_instance_profile                 = (known after apply)
      + id                                   = (known after apply)
      + instance_initiated_shutdown_behavior = (known after apply)
      + instance_lifecycle                   = (known after apply)
      + instance_state                       = (known after apply)
      + instance_type                        = "t3.micro"
```

```
aws_subnet.latihan-2-subnet-public-1: Creating...
aws_route_table_association.latihan-2-rta-public-2-a: Destruction complete after 2s
aws_subnet.latihan-2-subnet-public-1: Still creating... [10s elapsed]
aws_instance.latihan-2-ec2-2: Still destroying... [id=i-0ac8f9391834464c5, 10s elapsed
]
aws_subnet.latihan-2-subnet-public-1: Creation complete after 14s [id=subnet-0357c4f6a
41ea8ae1]
aws_route_table_association.latihan-2-rta-public-1-a: Creating...
aws_instance.latihan-2-ec2-1: Creating...
aws_route_table_association.latihan-2-rta-public-1-a: Creation complete after 2s [id=r
tbassoc-0dc38653969e07077]
aws_instance.latihan-2-ec2-2: Still destroying... [id=i-0ac8f9391834464c5, 20s elapsed
]
aws_instance.latihan-2-ec2-1: Still creating... [10s elapsed]
aws_instance.latihan-2-ec2-2: Still destroying... [id=i-0ac8f9391834464c5, 30s elapsed
]
aws_instance.latihan-2-ec2-1: Creation complete after 19s [id=i-08fd8f1d587a6c97d]
aws_instance.latihan-2-ec2-2: Still destroying... [id=i-0ac8f9391834464c5, 40s elapsed
]
aws_instance.latihan-2-ec2-2: Still destroying... [id=i-0ac8f9391834464c5, 50s elapsed
]
aws_instance.latihan-2-ec2-2: Destruction complete after 55s
aws_subnet.latihan-2-subnet-public-2: Destroying... [id=subnet-0532e14e59802dacd]
aws_subnet.latihan-2-subnet-public-2: Destruction complete after 0s
aws_subnet.latihan-2-subnet-public-2: Creating...
aws_subnet.latihan-2-subnet-public-2: Still creating... [11s elapsed]
aws_subnet.latihan-2-subnet-public-2: Creation complete after 13s [id=subnet-01a7f8bd7
fe987c5b]
aws_route_table_association.latihan-2-rta-public-2-a: Creating...
aws_instance.latihan-2-ec2-2: Creating...
aws_route_table_association.latihan-2-rta-public-2-a: Creation complete after 2s [id=r
tbassoc-02341b6ce7cf2cd11]
aws_instance.latihan-2-ec2-2: Still creating... [10s elapsed]
aws_instance.latihan-2-ec2-2: Creation complete after 18s [id=i-0636291bcb3a0473c]

Apply complete! Resources: 6 added, 0 changed, 3 destroyed.
```



Subnet (2)

Subnet dalam VPC ini

ap-southeast-2a

latihan-2-subnet-public-1

ap-southeast-2b

latihan-subnet-public-2

Tabel rute (2)

Rutekan lalu lintas jaringan ke sumber daya

latihan-2-route-table-public

rtb-0ed16aaeaedb6c67b

Koneksi jaringan (1)

Koneksi ke jaringan lain

latihan-2-igw

Kaitan subnet eksplisit (2)

Edit kaitan subnet

Temukan kaitan subnet

1

Nama	ID Subnet	CIDR IPv4	CIDR IPv6
latihan-2-subnet-public-1	subnet-0357c4f6a41ea8ae1	10.0.1.0/24	–
latihan-subnet-public-2	subnet-01a7f8bd7fe987c5b	10.0.2.0/24	–

Instans (4) Info

Hubungkan | Status instans | Tindakan | Luncurkan instans

Temukan Instans berdasarkan atribut atau tanda (case-sensitive)

Status apa pun

1

Name	ID Instans	Status instans	Tipe instans	Pemeriksaan statı	Status alarm
latihan-2	i-0026f53694a841c07	Menjalankan	t2.micro	2/2 pemeriksaan l	Lihat alarm
Latihan-2-ec2-1	i-08fd8f1d587a6c97d	Menjalankan	t3.micro	2/2 pemeriksaan l	Lihat alarm
Latihan-2-ec2-2	i-0ac8f9391834464c5	Diakhiri	t3.micro	–	Lihat alarm
Latihan-2-ec2-2	i-0636291bcb3a0473c	Menjalankan	t3.micro	2/2 pemeriksaan l	Lihat alarm